

**Abstract**

An apparatus (e.g., 10) extracts information from electromagnetic energy via multi-characteristic spatial geometry processing. A portion (e.g., 6) of the apparatus (10) receives electromagnetic energy from a source (e.g., an object 2). The received electromagnetic energy has a plurality of spatial phase characteristics. A portion (e.g., 8A-8X) separates the plurality of spatial phase characteristics of the received electromagnetic energy. A portion (e.g., 14A-14X) identifies spatially segregated portions of each spatial phase characteristic, with each spatially segregated portion of each spatial phase characteristic corresponding to a spatially segregated portion of each of the other spatial phase characteristics in a group. A portion (e.g., 24) quantifies each segregated portion to provide a spatial phase metric of each segregated portion for providing a data map of the spatial phase metric of each separated spatial phase characteristic.